UNITED STATES DISTRICT COURT EASTERN DISTRICT OF NEW YORKX	
JOSEPH ISRAEL, et al.,	
Plaintiffs,	MEMORANDUM <u>AND ORDER</u> 98 CV 5106 (ENV) (RML)
SPRING INDUSTRIES, INC., et al.,	70 C (2100 (21 ()) (111 () 2)
Defendants.	

LEVY, United States Magistrate Judge:

Defendants Springs Industries, Inc. and Dundee Mills, Inc. (collectively, "defendants" or "Dundee") move to preclude the reports and testimony of three of plaintiffs' expert witnesses, Joseph Carfi, M.D., Leonard Freifelder, Ph.D, and Lisa Altshuler, Ph.D. For the reasons stated below, Dr. Carfi is directed to appear in court for a <u>Daubert</u> hearing on the issue of medical causation with respect to Joseph Israel's eczema. The remainder of his report and testimony are inadmissible under <u>Daubert</u>. In addition, to the extent Dr. Altshuler has rendered an opinion as to the cause of Joseph's medical conditions, that portion of her opinion is inadmissible, but the remainder is admissible. Finally, Dr. Freifelder's report and testimony are inadmissible in their entirety.

BACKGROUND AND FACTS

This case was removed from state court in August 1998. Familiarity with plaintiffs' claims is assumed. Briefly, however, plaintiffs allege that Joseph Israel ("Joseph"), who is presently eleven years old, has suffered certain medical conditions that have as their root cause the Dundee crib sheets on which he slept as an infant, starting at the age of approximately

¹ Joseph's date of birth is January 23, 1995.

3-4 months.² (See generally Complaint, dated July 9, 1998.) According to plaintiffs, the packaging on the sheets indicated that they were 100% cotton, when in fact they were not. (Id. ¶¶ 8, 9, 11.) Because Joseph allegedly was allergic to non-cotton synthetic products (id. ¶9), plaintiffs contend that his exposure to the synthetic material caused a severe allergic reaction that exacerbated his atopic dermatitis and caused him to suffer permanent physical and psychological injuries. To support their claims, plaintiffs have named as experts, *inter alia*, Dr. Joseph Carfi, a physiatrist, Dr. Leonard Freifelder, an economist, and Dr. Lisa Altshuler, a pediatric psychologist. Defendants move to preclude the reports and testimony of all three experts under Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579 (1993).

DISCUSSION

Rule 702 of the Federal Rules of Evidence provides that:

if scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified by knowledge, skill, experience, training, or education may testify thereto in the form of an opinion or otherwise.

In <u>Daubert</u>, 509 U.S. 579, the Supreme Court stated that before admitting evidence under Rule 702, the trial judge is required to ensure that the scientific testimony or evidence is both reliable and relevant. <u>Id.</u> at 589. The court must assess whether the expert's opinion is grounded in "methods and procedures of science," whether it consists of more than simply "subjective belief or unsupported speculation" (<u>id.</u> at 589), and "whether the reasoning or methodology underlying

² Joseph's mother, Beverly Israel, testified in her deposition that Joseph began sleeping on the crib sheets at 3-4 months of age and stopped sleeping on them in August 1997, when he was approximately 19 months old. (See Deposition of Beverly Israel, dated Dec. 29, 1999, annexed to the Affidavit of Jonathan A. Judd, Esq., dated Feb. 16, 2006, as Ex. E., at 14-15, 46.)

the testimony is scientifically valid and . . . properly can be applied to the facts in issue." <u>Id.</u> at 592-93. In making this determination, the court may consider the following (nonexclusive) factors: (1) whether the theory or technique can be (and has been) tested; (2) whether the theory or technique has been subjected to peer review or publication; (3) the known or potential rate of error and the existence and maintenance of standards controlling the technique's operation; and (4) general acceptance in the scientific community. <u>Id.</u> at 591-93. Other factors courts tend to take into account include: (a) the existence of standards controlling the technique's operation, (b) the relationship of the technique to methods that have been established to be reliable, (c) the qualifications of the expert witness, and (d) the non-judicial uses to which the method has been put. In re Paoli R.R. Yard PCB Litig., 35 F.3d 717, 742 n.8 (3d Cir. 1994); Finley v. NCR Corp., 964 F. Supp. 882, 885 (D.N.J. 1996). Finally, the court must determine "whether the experts are proposing to testify about matters growing naturally and directly out of research they have conducted independent of the litigation, or whether they have devolved their opinions expressly for purposes of testifying." <u>Daubert v. Merrell Dow Pharms., Inc.</u>, 43 F.3d 1311, 1317 (9th Cir. 1995). The proponent of the expert's testimony bears the burden of establishing its admissibility by a preponderance of the evidence. Daubert, 509 U.S. at 593 n.10.

The Second Circuit has adopted a flexible interpretation of <u>Daubert</u>. In <u>Borawick</u> v. Shay, 68 F.3d 597, 610 (2d Cir. 1995), the court explained that:

by loosening the strictures on scientific evidence set by <u>Frye</u>, <u>Daubert</u> reinforces the idea that there should be a presumption of admissibility of evidence. Second, it emphasizes the need for flexibility in assessing whether evidence is admissible. Rather than using rigid "safeguards" for determining whether testimony should be admitted, the Court's approach is to permit the trial judge to weigh the various considerations pertinent to the issue in question. Third, <u>Daubert</u> allows for the admissibility of scientific

evidence, even if not generally accepted in the relevant scientific community, provided its reliability has independent support. Finally, the Court has expressed its faith in the power of the adversary system to test "shaky but admissible" evidence and advanced a bias in favor of admitting evidence short of that solidly and indisputably proven to be reliable.³

Moreover, in Kumho Tire v. Carmichael, 526 U.S. 137, 150 (1999), the Supreme Court emphasized that courts have "broad latitude" in deciding whether and how to apply the Daubert factors and that "the relevant reliability concerns may focus upon personal knowledge or experience." In fact, "[i]n certain fields, experience is the predominant, if not sole, basis for a great deal of reliable expert testimony." FED. R. EVID. 702 advisory committee's note (2000). The Court in Kumho Tire also stressed that the Daubert elements are not a definitive checklist and that the trial court's gatekeeping inquiry must be "flexible" and "tied to the facts of a particular case." Kumho Tire, 526 U.S. at 150. See also Heller v. Shaw Indus., Inc., 167 F.3d 146, 152 (3d Cir. 1999) ("the district court's gatekeeper role is a flexible one and . . . the factors are simply useful signposts, not dispositive hurdles that a party must overcome in order to have expert testimony admitted."). The primary objective is "to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." Kumho Tire, 526 U.S. at 152.

Importantly, however, "[i]f the witness is relying solely or primarily on experience, then the witness must explain how that experience leads to the conclusion reached

³ The court in <u>Borawick</u> discussed but did not apply <u>Daubert</u> directly because the issue of whether to admit or exclude the proposed expert, a hypnotist, was one of competence, not reliability. <u>Borawick</u>, 68 F.3d at 610.

... and how that experience is reliably applied to the facts. The trial court's gatekeeping function requires more than simply 'taking the expert's word for it.'" Thomas v. City of Chattanooga, 398 F.3d 426, 432 (6th Cir. 2005) (quoting FED. R. EVID. 702 advisory committee note), cert. denied, 126 S. Ct. 338 (2005). In other words, expert opinions are inadmissible if based on speculative assumptions. See In re Air Disaster at Lockerbie Scotland on Dec. 21, 1988, 37 F.3d 804, 824 (2d Cir. 1994) (overruled on other grounds by Zicherman v. Korean Air Lines Co., 516 U.S. 217 (1996), as recognized in Brink's Ltd. v. South African Airways, 93 F.3d 1022, 1029 (2d Cir. 1996)). See also Kumho Tire, 526 U.S. at 157 ("Opinion evidence that is connected to existing data only by the *ipse dixit* of the expert" should not be admitted.).

A. Joseph Carfi, M.D.

According to his *curriculum vitae*, Dr. Carfi is a board certified physician in the fields of physical medicine and rehabilitation and is a board certified medical examiner.

(Affidavit of Jonathan A. Judd, Esq., dated Feb. 16, 2006 ("Judd Aff."), Ex. J(2).) Dr. Carfi earned his M.D. from Mount Sinai School of Medicine in 1981 and completed his hospital training through residences at New York University Medical Center, Bellevue Hospital, and the Rusk Institute. (Id.) Dr. Carfi has an extensive list of presentations and publications, most dealing with his specialties of rehabilitation and physical medicine. (Id.)

Dr. Carfi's medical specialty is physical medicine and rehabilitation. (Affidavit of Joseph Carfi, M.D., sworn to May 23, 2006 ("Carfi Aff."), ¶ 2, annexed as Ex. CC, Part 1, to Pls.' Opp'n.) This specialty is "concerned with diagnosis, evaluation, and management of persons of all ages, physical and/or cognitive impairment and disability'[.]" (Id. (quoting the American Board of Physical Medicine and Rehabilitation website, http://www.abpmr.org (last

visited Aug. 2, 2006)).) Additionally, "'Physiatrists are trained in the . . . long term management of patients with disabling conditions.'" (<u>Id.</u>) Dr. Carfi therefore has received training in caring for a variety of musculoskeletal conditions and chronic disabilities; however, he has never treated an individual with atopic dermatitis or allergies. (Deposition of Joseph Carfi, M.D., dated July 16, 2004 ("Carfi Dep."), annexed to the Judd Aff. as Ex. K, at 26-27, 81-82, 122.)

Nor is he board certified in allergy. (<u>Id.</u> at 75.)

Plaintiffs intend to offer Dr. Carfi's testimony on four distinct points: (1) that Joseph's medical condition was caused by "exposure to the synthetic fiber allergen"; (2) that Joseph "will incur extraordinary costs associated with his illness" which are delineated in a "Life Care Plan" that Dr. Carfi has created for Joseph; (3) that Joseph is "quite delayed in terms of educational skills"; and (4) "that his employment opportunities will be severely hampered." (Report on Joseph Israel by Dr. Joseph Carfi, dated Apr. 1, 2004 ("Carfi Report"), at 5, annexed as Ex. CC, Part 2 to Pls.' Opp'n.) Each of these opinions will be considered in turn.

(a) Causation

Dr. Carfi's assessment of Joseph's case consisted of a review of Joseph's medical history written by Joseph's mother, a review of some of Joseph's medical records, and an approximately hour-long examination of Joseph.⁴ (Carfi Report at 1-5.) From these, Dr. Carfi concluded that the specific cause of Joseph's "current severely exacerbated medical condition" was the "chronic and intimate exposure to the synthetic fiber." (<u>Id.</u> at 5.) It is unclear from this statement what aspect of Joseph's medical condition Dr. Carfi is referring to. Joseph's medical

⁴ At his deposition, Dr. Carfi could not recall exactly how long the examination lasted, but he stated that he typically schedules an hour for evaluations. (Carfi Dep. at 13.)

records indicate that Joseph suffers from chronic sinusitis, asthma, eczema, gastroesophageal reflux disease, and severe food allergies.⁵ (Id. at 2.) Dr. Carfi's report also indicates that Joseph is allergic to antibiotics and latex. (Id. at 3, 5; see also Carfi Dep. at 52.) Dr. Carfi's statement appears to suggest that all of Joseph's ailments stem from his exposure to the polyester in the crib sheets. However, in his deposition, Dr. Carfi testified, "[i]f you ask me what percentage is gastrointestinal, what percent is polyester, I can't give you that breakdown" (Carfi Dep. at 76), suggesting that the polyester may not have caused or contributed to Joseph's gastroesophageal reflux disease or food allergies. Later in the deposition, Dr. Carfi stated, "I can't give you a breakdown of GI versus pulmonary, versus the allergy to the synthetic fibers," suggesting that Joseph's asthma may not have been caused or affected by exposure to the sheets. (Id. at 105.) Indeed, when asked whether he could point "to any medical record that establishes or even suggests that the other conditions from which [Joseph] suffered [asthma, food allergies, gastrointestinal problems, sinusitis] cascaded from his exposure to the polyester," Dr. Carfi answered, "I cannot, no." (Id.) When asked whether he believed the exposure to polyester was the sole cause of all of Joseph's medical conditions, Dr. Carfi replied, "I never said it was the sole cause. . . . What I said was it was a significant substantial cause of his current problems and how everything flowed . . . from that initial contact." (Id.) His report, however, seems to

⁵ Joseph's medical records, as summarized in Dr. Carfi's report, indicate that Joseph is highly allergic to peanuts, soy, rice, corn and wheat. (See Carfi Report at 3.) According to his mother, Joseph is unable to eat any food whatsoever. (Deposition of Beverly Israel, dated Mar. 21, 2005 ("B. Israel Dep."), annexed as Ex. F. to the Judd. Aff., at 87.)

⁶ Dr. Carfi conceded that Joseph is no longer in contact with polyester or other synthetics. (Carfi Dep. at 122.) He explained that, in his opinion, Joseph's exposure to polyester as an infant "was a significant factor in developing all the various hypersensitivities which lead (continued...)

implicate the polyester for all of Joseph's conditions. This is confirmed by the Life Care Plan (annexed as Ex. CC, Part 3, to Pls.' Opp'n), discussed further below, which lists Neocate, Joseph's food substitute, and pulmonary care, for asthma, as costs. Dr. Carfi testified that the costs he determined in the Life Care Plan are those that Joseph will incur due to the exposure to the polyester in the sheets. (Carfi Dep. at 104.)

Plaintiffs mistakenly argue that because two other experts – Drs. Stewart H.

Young and Vincent Beltrani – are qualified to testify, Dr. Carfi should also be allowed to testify.

(See Plaintiffs' Memorandum of Law in Opposition to Defendants' Second Motion, dated May 30, 2006 ("Pls.' Mem."), at 3-4.) Plaintiffs also mistakenly assert that the only issue in this case is general causation, and seem to imply that this is what Dr. Carfi's report discusses. (Id. at 5.)

Drs. Young and Beltrani will present testimony on the issue of whether polyester is a recognized allergic trigger, addressing general causation. Dr. Carfi, however, opines that the polyester in the sheets caused Joseph's symptoms, which addresses specific causation. Also, notwithstanding plaintiffs' contention, it is glaringly obvious that specific causation is at issue both in this motion and in the case as a whole.

(Id. at 124.)

⁶(...continued) up to what we see today. So although no, it's not due to the direct contact now, I do believe that that initial very prolonged exposure is why he is the way he is today." (<u>Id.</u> at 123.) The questioning proceeded as follows:

Q. Are you saying that the polyester that he slept on triggered some type of allergic reaction that led to this condition, the current condition?

A. In effect, yes.

Q. Even though that was years ago?

A. Even though that was years ago, yes, it set him up for his current travails.

Defendants argue that Dr. Carfi's testimony on causation is unreliable because he relied on insufficient or inappropriate data. Specifically, they argue that Dr. Carfi: (1) relied extensively on a medical history provided by Joseph's mother, including the written history that she did not sign or date; (2) failed to obtain a full family medical history; (3) failed to review all relevant medical documents but instead relied only on records "sufficient to give [him] a synopsis" of Joseph's condition; (4) failed to read the records of Joseph's pulmonologist; and (5) failed to review any medical records from the period before he began sleeping on the sheets. (Defs.' Mem. at 6, 7.) Additionally, defendants claim that Dr. Carfi's opinions are not reliable because they are not based on reliable scientific principles and methods.

Given the liberal standard set by the Second Circuit, Dr. Carfi's training certainly qualifies him as an expert in his ability to determine medical causation and to create a Life Care Plan. However, three gaps in Dr. Carfi's analysis merit discussion: his failure to review Joseph's records from birth, including those of Joseph's pediatrician; his failure to seek out more complete medical records in the case of Joseph's gastrointestinal problems and food allergies; and his failure to consult the family history. Dr. Carfi argues that the pre-exposure records are immaterial because the defendants' expert on general causation stated that he did not need to review them extensively. (Carfi Aff. ¶ 19.) But that expert opines that polyester is not an allergen and, accordingly, that Joseph could not have developed his condition from the polyester in the sheets. That is very different from saying that it was the polyester that caused Joseph's medical problems, which is Dr. Carfi's position. Knowledge of Joseph's medical condition pre-exposure is thus highly relevant, particularly in light of defendants' claim that Joseph was born

with a rash covering part of his body.⁷ (Defs.' Mem. at 1. <u>See also</u> Records of treating pediatrician Dr. Melvin Koplow,⁸ annexed as Ex. I to the Judd Aff.) Dr. Carfi also did not know the frequency of Joseph's hospital admissions after August 1997, when plaintiffs claim Joseph stopped sleeping on the crib sheets. (Carfi Dep. at 35.)

Greater knowledge of Joseph's food allergies would also be important, as Dr. Carfi opines that Joseph's food allergies stem from his exposure to polyester. Dr. Carfi did not know when the food allergies began or had first been diagnosed (Carfi Dep. at 55-56),⁹ and he

(Carfi Dep. at 33-34.)

⁷ In his deposition, Dr. Carfi testified as follows:

Q. Did you ever request copies of [Joseph's] birth records to determine what conditions, if any, he was diagnosed with at birth?

A. I did not, no.

Q. Did you ever request any records indicating his condition prior, from birth through three months of age?

A. I did not make that request, no.

Q. In your report, you indicate that Joseph began to develop a rash on his cheeks at about three to four months of age and I just want to ask where you got that information from?

A. Yes, this information came from the medical summary which was provided by the parents, the parental synopsis of his medical background.

Q. Are you aware that Joseph was born with a skin condition?

A. No, I was not aware of that.

⁸ Dr. Altshuler's report also makes reference to Joseph's having developed a "fiery red" rash on his face and body immediately after his birth. (See Report of Lisa Altshuler, Ph.D., annexed as Ex. J(1) to the Judd. Aff., at 1.)

⁹ With regard to the food allergies, Dr. Carfi testified:

Q. On Page 2 of your report, which is Exhibit A, you discuss Joseph's food allergies and at the very top of the page, second line, you say he developed multiple food allergies. Can you please tell me if you know when these food allergies developed?

A. I do not know specifically when those food allergies developed, no. It was (continued...)

reviewed only six records relating to the food allergies. (Carfi Report at 2-3.)

Finally, Joseph's family history should have been investigated, as Dr. Carfi appears to have concluded that Joseph's asthma was caused by exposure to the synthetic fibers in the sheets. Defendants point out that some of Joseph's siblings have asthma and that some of his uncles have asthma and allergies, citing Mrs. Israel's deposition. (Judd Aff. at 9; see also id., Ex. E. at 13, 61.) This suggests the potential for Joseph's asthma to be congenital and not the result of exposure to polyester.¹⁰

Most importantly, however, Dr. Carfi did not perform a differential diagnosis to establish that Joseph's medical problems were caused by the synthetic materials in the sheets.

- Q. Did you ever get a family history from Mrs. Israel?
- A. No, I did not.
- Q. Would that have been important in determining whether Joseph had some type of congenital condition?
- A. No.
- Q. Would that have been important in determining possible sources of his condition?
- A. No, I don't see how that would be relevant.

* * *

- Q. And did the mother tell you anything about any other illnesses that family members had?
- A. She did not mention any other family members, no.
- Q. Did you ask about any other illnesses that family members had?
- A. I did not, no.

(Carfi Dep. at 49-50, 53.)

⁹(...continued) certainly clear by May of '96 that he was suffering from failure to thrive, poor weight gain, which implies some sort of nutritional or gastrointestinal problem, but I do not know specifically when the food allergies per se developed.

¹⁰ Dr. Carfi testified as follows:

Rather, Dr. Carfi stated that he based his conclusion upon "the history, temporal sequence, the history provided to me, the records provided to me, the temporal sequence of events and the way the child presented to me and the data that I have and plus [sic] my own knowledge as a licensed physician." (Carfi Dep. at 76.)

"When offered for the purpose of proving specific medical causation, a meaningful or reliable differential diagnosis must specifically negate other alternative possible causes." Yarchak v. Trek Bicycle Corp., 208 F. Supp. 2d 470, 497 (D.N.J. 2002) (citation omitted); see also Zwillinger v. Garfield Slope Housing Corp., No. 94-4099, 1998 WL 623589, at *19 (E.D.N.Y. Aug. 17, 1998) ("To establish specific causation, other possible causes for the symptoms experienced by plaintiff should be excluded by performing a differential diagnosis.") (citing Mancuso v. Consolidated Edison Co. of New York, Inc., 967 F. Supp. 1437, 1445 (S.D.N.Y. 1997)); Fed. R. Evid. 702 advisory committee's note (in assessing an expert's reliability, courts should determine whether the expert "has adequately accounted for obvious alternative explanations."). The court has discretion to exclude as "unreliable" an expert's opinion as to the specific source or cause of a plaintiff's condition where "(1) the [expert] engaged in very few standard diagnosis techniques by which doctors normally rule out alternative causes and (2) the defendant pointed to some likely cause of the plaintiff's illness other than the defendant['s] actions and [the expert] offered no reasonable explanation as to why he or she still believed that the defendant['s] actions were a substantial factor in bringing about that illness." Yarchak, 208 F. Supp. 2d at 497-98 (quoting In re Paoli R.R. Yard PCB Litig., 35 F.3d 717, 760 (3d Cir. 1994)).

While an expert need not rule out every potential cause in order to satisfy

Daubert, the expert's testimony must at least address obvious alternative causes and provide a reasonable explanation for dismissing specific alternate factors identified by the defendant. See, e.g., Magistrini v. One Hour Martinizing Dry Cleaning, 180 F. Supp. 2d 584, 609 (D.N.J. 2002) ("While an expert is not required to rule out all alternative possible causes of a plaintiff's disease, 'where a defendant points to a plausible alternative cause and the doctor offers no reasonable explanation' for why he still concludes that the chemical was a substantial factor in bringing about the plaintiff's disease, 'that doctor's methodology is unreliable'") (quoting Paoli, 35 F.3d at 759-60), aff'd, 68 Fed. Appx. 356 (3d Cir. June 25, 2003); see also Diaz v. Johnson Matthey, Inc., 893 F. Supp. 358, 376 (D.N.J. 1995) (excluding expert medical testimony on issue of specific causation where physician "did little, if anything, to rule out alternative causes" and either "ignored" or offered "no satisfactory reason" for discounting "several alternative possible causes" for plaintiff's asthma identified by defendant).

Here, Dr. Carfi did not rule out other materials in the sheets¹¹ or entirely separate causes, both of which have been suggested by the defendants; as he explained, he based his opinion on what he viewed as a temporal correlation between the onset of Joseph's symptoms and the presence of the alleged cause.¹² The Second Circuit has dismissed cases where temporal proximity is the only connection between the plaintiff's symptoms and the alleged cause. <u>See</u>, e.g., <u>Washburn v. Merck & Co.</u>, No. 99-9121, 2000 U.S. App. LEXIS 8601, at *5 (2d Cir. 2001).

¹¹ For example, at Dr. Carfi's deposition, defendants' counsel asked him if he knew whether the sheets in question contained any dispersed dyes or formaldehyde resins. Dr. Carfi replied that he did not. (Carfi Dep. at 125.)

¹² Even a temporal connection is missing with respect to Joseph's sinusitis, as Dr. Carfi did not mention any records of sinusitis outside of the mother's history, which did not provide a date for the onset of the chronic sinusitis.

There may be scientific support for Dr. Carfi's opinion that Joseph's eczema resulted from or was exacerbated by the alleged polyester exposure, but as Dr. Carfi implicitly concedes, there is no objective medical evidence to link Joseph's other medical conditions to the sheets. This might be cured if Dr. Carfi had any professional experience with allergies or atopic dermititis, but Dr. Carfi has never treated anyone with similar allergies and therefore cannot base his conclusions on his own knowledge of the subject. Nor did Dr. Carfi attempt to further his knowledge; he did not confer with any allergists or consult any treatises, reports, publications or texts. (Carfi Dep. at 75, 95-96.) See Zwillinger, 1998 WL 623589, at *11. His opinion on causation is therefore problematic because it "did not emanate from his own research in the field, but rather was developed for purposes of litigation." Washburn, 2000 U.S. App. LEXIS 8601, at *8; see also Daubert, 43 F.3d at 1317. Dr. Carfi's testimony regarding the causation of Joseph's gastrointestinal problems, food allergies, asthma and chronic sinusitis is therefore inadmissible under Daubert.

The admissibility of Dr. Carfi's opinion as to the causation or exacerbation of Joseph's eczema is the one gray area, as it is based on more than temporal proximity (see Carfi Report at 2), but still was not apparently subject to a differential diagnosis. Dr. Carfi is therefore directed to appear before me for a <u>Daubert</u> hearing, at which plaintiffs will be given an opportunity to meet their burden of establishing a reliable scientific basis for Dr. Carfi's conclusion that Joseph's eczema was caused or exacerbated by his contact with synthetic fibers as an infant.

(b) <u>Life Care Plan</u>

The Life Care Plan that Dr. Carfi prepared for Joseph estimates the yearly costs of

his care that Dr. Carfi attributes to Joseph's exposure to polyester in his crib sheets. (Life Care Plan, annexed as Ex. CC, Part 3, to Pls.' Opp'n.) Defendants argue that the Life Care Plan is flawed because Dr. Carfi did not take into account insurance costs, relied on Mrs. Israel's statements, and used flawed calculations. (Defs.' Mem. at 13-16.) Dr. Carfi has authored numerous life care plans and views creation of them as "a natural extension of [his] training, knowledge, and experience as a physician in the field of physical medicine and rehabilitation." (Carfi Aff. ¶ 6, 8.) To create Joseph's Life Care Plan, Dr. Carfi relied on information provided by Joseph's mother, the physical examination, price research, and his own knowledge and experience as a physician. (See Carfi Dep. at 97-98.) He did not take into account Joseph's past medical expenses (id. at 97) and did not speak with any of Joseph's treating physicians or review any of his medical records in formulating the Life Care Plan. (Id. at 101-02.)

Dr. Carfi's preparation of the Life Care Plan seems adequate as an estimation of the current costs associated with Joseph's many ailments. Dr. Carfi's reliance on Mrs. Israel appears professionally appropriate; although Mrs. Israel is a plaintiff, the information she provided was easily checked and is sufficiently accurate for an estimation. As for insurance coverage, the costs are the same regardless of who is paying for them; it therefore is not important to differentiate at this stage. The defendants make an issue of the fact that Dr. Carfi estimated how much Neocate Joseph consumed by averaging the high and low daily consumption that Mrs. Israel provided, and that Dr. Carfi accepted her statements at Joseph's examination and in her history over those of a subsequent deposition. (Id. at 15.) It is obvious,

Mrs. Israel testified that Medicaid covers the costs of Joseph's medications and Neocate. (B. Israel Dep. at 100-01, 116.)

however, that some kind of average was necessary, and it was reasonable to take the mother's office-visit estimation for Joseph's high/low consumption and assume that it was normal for him to consume somewhere in between those amounts daily.¹⁴

The main problem with the Life Care Plan is that it relies on Dr. Carfi's conclusions about causation and does not attempt to separate out which costs relate to which conditions. In his deposition, Dr. Carfi testified that, in his opinion, the future costs reflected in the Life Care Plan are all linked to Joseph's exposure to the sheets. (Carfi Dep. at 104.) When asked the basis for this opinion, Dr. Carfi stated:

That's based upon again the exposure, how long that occurred, the results thereof, very clear relationship between that and his initial medical problems cascading into all of his other allergies as well as the medical records and all the treatments he has had for his allergic issues, there was this event and this exposure and everything else seemed to follow from that, that's the basis.

(<u>Id.</u>) Again, however, Dr. Carfi conceded that he could not identify any medical record that suggested a connection between Joseph's multiple chronic conditions – such as his asthma and his severe food allergies – and his exposure to synthetic fibers. (<u>Id.</u> at 105.) When asked at his deposition whether he could "say for certain that none of the costs that are reflected in [the] Life Care Plan were necessitated by any condition that Joseph was born with," Dr. Carfi answered, "I couldn't say that with confidence. I was not told of any serious condition that he had prior to that synthetic exposure." (<u>Id.</u> at 105-06.) This reflects a serious flaw in Dr. Carfi's

As explored in Dr. Freifelder's deposition, discussed below, a difference of four ounces of Neocate per day results in an estimated difference of \$2,166.84 annually, or approximately \$420,000 total, taking into account an estimated price increase of three percent per year. (See Freifelder Dep. at 194-200.) An overestimate of the amount of Neocate Joseph is likely to consume therefore results in a significant overestimate of the projected cost. Regardless, Dr. Carfi's Life Care Plan is inadmissible for the reasons discussed *infra*.

methodology. For example, Dr. Carfi estimates that Joseph will require Neocate, at a cost of approximately \$30,335.71 per year, for the remainder of his life. (Life Care Plan, annexed as Ex. CC, Part 3, to Pls.' Opp'n.) Yet he cites no scientific studies, peer-reviewed articles, or other research that indicates that there could be any causal connection between exposure to polyester and severe food allergies. The Life Care Plan also estimates that Joseph will incur \$3,900 in annual costs, for the rest of his life, for visits to a pulmonary specialist to monitor Joseph's lungs. Yet, again, Dr. Carfi cites no reliable medical evidence to show a causal connection between polyester exposure and asthma. Nor does he reference any scientific evidence to support his assumption that Joseph will continue to experience his current symptoms permanently. Since he has no direct experience treating patients with allergies similar to Joseph's, Dr. Carfi's Life Care Plan is speculative and is therefore inadmissible.

(c) Educational Development

Dr. Carfi also determined that Joseph was functioning below grade level and was "quite delayed in terms of educational skills." (Carfi Report at 5.) He did this by asking Joseph a few math and spelling problems, out loud, over the span of a few minutes in the course of an hour-long physical examination. Joseph spelled some of the words incorrectly and added some of the numbers incorrectly. (Carfi Report at 4-5.) From Joseph's answers and Joseph's mother's statement of her assumption of his grade level, Dr. Carfi concluded that Joseph was working well below grade level. (Id. at 3-5.) Dr. Carfi did not request or review any of Joseph's

¹⁵ Indeed, according to defendants' expert, Dr. Vincent Beltrani, an allergist and immunologist, "publications and guidelines of care for atopic dermatitis reflect that 90% of all infants born with this genetic condition improve significantly by puberty." (Affidavit of Vincent Beltrani, M.D., annexed as Ex. M to the Judd. Aff.)

school records or attempt to speak with any of his teachers. (Id. at 56, 58.)¹⁶

To assist in determining whether Dr. Carfi reached his conclusion using proper methodology, the court may consider whether his "theory or technique . . . can be (and has been) tested." <u>Daubert</u>, 509 U.S. at 593. Clearly, spelling tests and math problems assist educators in evaluating a child's skills. However, the four addition problems and four spelling problems that Dr. Carfi gave to Joseph were not from any educational guide, but were culled solely from his "own parental experience" (Carfi Dep. at 58), as Dr. Carfi has no educational credentials. (<u>Id.</u> at 59, 65.) Plaintiffs do not suggest that this method of assessment was tested, and it apparently was not.

The court may also consider whether the expert's "theory or technique has been subjected to peer review and publication." <u>Id.</u> Plaintiffs do not suggest that Dr. Carfi's technique has been subjected to peer review, and it is unlikely that it has been. There are many methods of educational testing that have been peer reviewed and are considered valid in the field, but a six-minute oral spelling and math test in a doctor's office is not one of them.

The court also must consider "the known or potential rate of error" for a particular technique. <u>Id.</u> at 594. Neither side presented a known rate of error for this method of educational testing. It seems clear, however, that it would be difficult to assess a child's grade level in five minutes, regardless of the technique. Dr. Carfi administered no written test and no reading test (<u>id.</u> at 22, 24, 130), and he conducted no testing of any area other than addition and spelling. There was not anything close to a full evaluation of Joseph's educational skills. The

¹⁶ Dr. Carfi indicated in his report and deposition that Joseph was being home schooled (<u>see</u> Carfi Report at 4; Carfi Dep. at 56), but he did not know who instructed Joseph at home.

setting also creates significant potential for error; asking math and spelling questions to a nine-year-old¹⁷ during a doctor's visit is unexpected and could easily result in confusion and incorrect answers.

Finally, the court may consider whether the expert's theory or technique has general acceptance in the pertinent scientific community. <u>Id.</u> at 594. Plaintiffs do not present any evidence that educators would approve of this method of evaluation, and given the more rigorous standards school districts use in evaluating their students, the court safely assumes they would not. In short, Dr. Carfi's opinion as to Joseph's educational level was not based on rigorous scientific methods and is thus inadmissible.

(d) Employment

Finally, Dr. Carfi opines that Joseph's "employment opportunities will be severely hampered." (Carfi Report at 5.) Dr. Carfi does not claim to be a vocational specialist (see Carfi Dep. at 93), and he does not explain the foundation for this conclusion, other than stating conclusorily that Joseph's allergies, poor social skills, "cognitive issues" and "endurance issues," taken together, make him "virtually unemployable in the competitive job market." (Id. at 126-27.)¹⁸ This opinion is not grounded in "methods and procedures of science," but simply reflects Dr. Carfi's "subjective belief or unsupported speculation." See Daubert, 509 U.S. at 589. It is therefore inadmissible.

¹⁷ (See Carfi Report at 4.)

¹⁸ Indeed, Dr. Carfi acknowledged that, with the proper guidance, education and treatment, there is the potential for Joseph's condition to improve before the age at which he would be expected to enter the job market. (Carfi Dep. at 127.)

B. Lisa Altshuler, Ph.D.

Dr. Altshuler is a pediatric psychologist with approximately twenty years of professional experience. Her *curriculum vitae* indicates that she earned a Ph.D. in clinical psychology from the University of Louisville, Kentucky in 1986 and has been co-director of developmental and behavioral pediatrics in the Department of Pediatrics at Maimonides Medical Center in Brooklyn since 1995. (See Judd Aff., Ex. J(1).) She has an extensive list of publications, most dealing with pediatric psychology, and has held a number of academic positions, including Assistant Professor in the Department of Pediatrics at Albert Einstein College of Medicine from 1989 to 1994. (Id.)

Dr. Altshuler's report describes Joseph's developmental history and current functioning, makes a number of behavioral observations, describes the results of various psychological evaluations, and concludes with diagnostic impressions. (See Report of Lisa Altshuler, Ph.D., annexed as part of Ex. J(1) to the Judd Aff.) Among Dr. Altshuler's diagnostic impressions is her opinion that Joseph demonstrates "borderline verbal and nonverbal cognitive abilities," although Dr. Altshuler acknowledges that "this must be considered an underestimate of his abilities as emotional and behavioral factors negatively affected his performance on cognitive tasks and may interfere with his learning." (Id. at 6.) Dr. Altshuler's report concludes that, in her opinion, "Joseph's medical history has strongly impacted his functioning and has been a major contribution to psychological and social disability." (Id.) She further opines that:

It is difficult to tease out the relative contribution to his psychological difficulties caused by exposure to polyester sheets as compared to his underlying illness. However, as a factor that substantially increased the severity [of his] symptoms, medical

treatment and hospitalizations it also correspondingly increased the likelihood of significant emotional damage. Given that the hospitalizations and treatments occurred at such an early age and persisted for over two years, the impact was magnified. Joseph was chronically ill, in discomfort and pain during a time when he was faced with the developmental tasks of acquiring a sense of basic trust in the world, a sense of autonomy, and of experiencing the beginnings of being able to be effective in mastering aspects of his environment. This was a critical time and illness and hospitalization during this time can have significant and life-long effects on emotional development. This, in my opinion, seems clearly to be the case with Joseph. While it is not possible to quantify the contribution to his emotional problems made by exposure to polyester, it is clear that this made a significant contribution to his current difficulties.

(Id.)

Defendants object to Dr. Altshuler's opinion that Joseph's early exposure to synthetic fibers, and the medical interventions that purportedly resulted from that exposure, contributed significantly to his current psychological and emotional problems. They contend that her opinion on causation is unreliable because she (1) conducted a "very limited review" of Joseph's medical records;¹⁹ (2) did not review any of Joseph's school records;²⁰ (3) relied on uncorroborated information supplied by Joseph's mother, plaintiffs' counsel and a retained expert witness; (4) relied on information obtained informally and via an ongoing relationship with the plaintiffs through "Project DOCC" (which stands for "Delivery of Chronic Care"), a

¹⁹ Dr. Altshuler testified that she reviewed Joseph's medical records at Maimonides Medical Center, from birth until approximately age three, but did not review his records from Johns Hopkins or Mount Sinai. (Deposition of Dr. Lisa Altshuler, dated Feb. 4, 2004 ("Altshuler Dep."), annexed to the Judd Aff. as Ex. S, at 57-58, 66.) Nor did she review the records of Joseph's pediatrician, Dr. Koplow. (<u>Id.</u> at 76.)

²⁰ Dr. Altshuler did testify that she spoke with Joseph's teacher and obtained a teacher's evaluation. (Altshuler Dep. at 55-56, 98.)

hospital program involving parents of chronically ill children;²¹ and (5) conducted only three brief interviews and testing sessions with Joseph, during which Joseph exhibited problems with motivation and cooperation. (See Judd Aff. at 33-34.)

There can be no dispute that Joseph has experienced numerous hospital admissions, emergency room visits, and medical treatments throughout his infancy and childhood. Nor do defendants take issue with Dr. Altshuler's competency to administer psychological tests or to evaluate and treat psychological problems in children. Their primary objection is to the methodology Dr. Altshuler employed in drawing a causal connection between Joseph's ongoing psychological and social disabilities and his alleged exposure to polyester as an infant.

In conducting her review of Joseph's case, Dr. Altshuler used traditional tools to make an assessment of a patient: personal interviews, a medical record review, clinical rating scales, ²² and background facts of past symptoms, behaviors, and experiences. Defendants do not dispute that these tools are the appropriate ones for rendering an expert opinion, and the case law suggests that this is, indeed, the type of methodology employed to form a reliable psychiatric opinion. See United States v. Finley, 301 F.3d 1000, 1006, 1008 (9th Cir. 2000) (appropriate

²¹ In her deposition, Dr. Altshuler testified that she first met plaintiff Beverly Israel when Mrs. Israel became involved in a program at Maimonides Hospital in which parents of chronically ill children meet with pediatric residents, often in the parent's home. (Altshuler Dep. at 25.) Dr. Altshuler explained that the purpose of the program is "to help [medical] residents understand the psychological and family impact of medical conditions," and that Mrs. Israel is a parent coordinator of the program. (<u>Id.</u> at 26-27.)

The clinical rating scales included the Wechsler Intelligence Scale for Children, the Vineland Adaptive Behavior Scales, the Achenbach Child Behavior Checklist, the Connors Parent Rating Scale, and the SNAP-IV Rating Scale. (See Altshuler Report at 4-5.)

psychology methodology includes "a history of the patient, consisting of family, vocational, educational, medical, and legal histories, the observation of the patient's behavior, and the administration of standard psychological tests"); Skidmore v. Precision Printing and Packaging, 188 F.3d 606, 618 (5th Cir. 1999) (psychiatrist expert testimony regarding cause of plaintiff's post-traumatic stress disorder and depression was admissible where expert "testified to his experience, to the criteria by which he diagnosed [plaintiff], and to standard methods of diagnosis in his field").²³

However, as explained above, to the extent Dr. Altshuler's testimony touches upon matters of causation, it will satisfy <u>Daubert</u>'s prerequisites for reliability only if the expert conducted a meaningful differential diagnosis ruling out other possible contributing factors.

During her deposition, Dr. Altshuler candidly admitted that she made no attempt to perform a differential diagnosis as to the cause of Joseph's medical conditions, as she is not a physician.

(Deposition of Dr. Lisa Altshuler, dated Feb. 4, 2004 ("Altshuler Dep."), annexed to the Judd

²³ As explained above, Daubert discussed the factors a court may consider in evaluating scientific validity: (1) whether the theory or technique can be or has been tested; (2) whether the theory or technique has been subjected to peer review and publication; (3) the method's known or potential rate of error; and (4) whether the theory or technique finds general acceptance in the relevant scientific community. Daubert emphasized, however that the inquiry is a "flexible one," and that the enumerated factors are not intended to be a definitive checklist. In Kumho, the Supreme Court reiterated that these factors "may or may not be pertinent in assessing reliability, depending on the nature of the issue, the expert's particular expertise, and the subject of his testimony." 526 U.S. at 150-51 (citations and quotations omitted). Neither party explains how the four-factor <u>Daubert</u> test would apply to Dr. Altshuler's testimony, and plaintiffs argue that, in fact, the <u>Daubert</u> factors are not applicable here. (Pl.'s Mem. at 11.) Nonetheless, the court's gatekeeping function "is to make certain that an expert . . . employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." Kumho Tire, 526 U.S. at 152. Thus, the court will examine whether: (i) the expert's testimony is based upon sufficient facts or data; (ii) the testimony is the product of reliable principles and methods; and (iii) the witness has applied the principles and methods reliably to the facts of the case. Id.

Aff. as Ex. S, at 95.)²⁴ She testified that she never discussed with Joseph's mother what type of detergent was used for Joseph's bedding (<u>id.</u> at 79), and she did not know when Joseph first exhibited symptoms of asthma, eczema or food allergies, or which physical symptoms related to which conditions. (<u>Id.</u> at 94-97.) Nor could she recall whether the medical records she reviewed made any mention of exposure to polyester. (<u>Id.</u> at 102, 104.)²⁵

In her report, Dr. Altshuler states that "Joseph had been exposed to polyester bedding for approximately the first two years of his life, which exacerbated his allergies, eczema and asthma, and contributed to multiple hospitalizations." (Altshuler Report at 1.) In her deposition, she testified that she based this statement on information she received from Joseph's mother and from Dr. Young's report. (Altshuler Tr. at 115-16, 119.) Later in her report, Dr. Altshuler states that "Joseph's skin condition improved once his parents switched to 100% cotton sheets in 1997 and the rate of hospitalizations decreased." (Altshuler Report at 2.) She testified that she based this latter statement on information from Joseph's mother, and that she

In her affidavit, Dr. Altshuler states that she has "not diagnosed Joseph with dermatitis" or opined that "an allergy to polyester bedding aggravated his dermatitis or resulted in any hospitalizations or specific medical treatment." (Affidavit of Lisa Altshuler, Ph.D., sworn to May 29, 2006, \P 14, Pl.'s Ex. EE.) Her report, however, states that "exposure to polyester sheets" was "a factor that substantially increased the severity" of Joseph's symptoms and therefore "made a significant contribution" to his current condition. (See Altshuler Report at 6.) These two statements are contradictory.

²⁵ When asked whether she would consider a mention of polyester exposure significant, Dr. Altshuler responded that she had only reviewed the records to determine the frequency of Joseph's hospitalizations and their effect on his behavior. She stated that she "wasn't trying to see specifically the issue of did they connect these hospitalizations to the polyester. That's something for the physician experts to talk about." (Altshuler Tr. at 102-03.) It bears noting that, according to defendants, "there is no mention of any such exposure [to polyester] in a single record of any of Joseph's medical treatment, whether from Maimonides Medical Center, Mt. Sinai, Johns Hopkins, Dr. Marcus or Joseph's pediatrician." (Judd Aff. at 30.)

did not probe the substance of this assertion. (Altshuler Dep. at 67-68.)²⁶

In sum, Dr. Altshuler is not qualified to testify that exposure to polyester caused or contributed to the ailments she diagnoses in Joseph. Dr. Altshuler is not a medical doctor (Altshuler Dep. at 28), much less an expert on allergies or the effects of exposure to synthetic materials in people with atopic dermatitis. Her opinion about the effects of the alleged polyester exposure are based solely on hearsay and not on any scientifically reliable methodology.

This determination of Dr. Altshuler's reliability with respect to causation does not preclude her testimony on other aspects relevant to plaintiffs' claim for damages. As an experienced, licensed pediatric psychologist, Dr. Altshuler's testimony is admissible as to her observations of Joseph, her evaluation of his behavioral, cognitive and psychological problems, and her diagnosis of Joseph's condition. She is also competent to render an opinion as to the effect of Joseph's early hospitalizations and medical treatments on his psychological and cognitive development. To the extent Dr. Altshuler did not review all of Joseph's medical and school records, relied on the subjective views of others, and had difficulty evaluating Joseph due to "fluctuation" in his motivation and cooperation, those issues go to the weight and credibility of the evidence, to be determined by the trier of fact. See Ambrosini, 101 F.3d at 141.

A. I didn't.

(Altshuler Dep. at 69.)

²⁶ Dr. Altshuler testified as follows:

Q. And did you at any time attempt to confirm or corroborate the mother's information to you that the frequency of hospitalizations decreased after he was removed from [] that bedding?

Presumably, defendants will explore those issues further at trial.²⁷

C. Leonard H. Freifelder, Ph.D.

According to his *curriculum vitae*, Dr. Freifelder earned his doctorate and master's degrees in operations research²⁸ and statistics from the University of Pennsylvania.

(See Judd. Aff., Ex. J(4).) He also has a bachelor's degree in actuarial science from The Wharton School of Business at the University of Pennsylvania. (Id.) He is the president of Freifelder & Associates Consulting, Inc.; in that capacity he prepares economic, statistical and actuarial studies for litigation and provides expert testimony in court. (Id.) Prior to starting his own consulting firm, Dr. Freifelder was a senior economist with The Center for Forensic Economic Studies, where he also prepared economic, statistical and actuarial studies for litigation and provided court testimony. (Id.) He has also worked as a manager of new business development at Warner Insurance Services, Inc. and as a Special Deputy Commissioner in the New Jersey Department of Insurance, and he has held a number of academic positions, including Associate Professor of Insurance at Baruch College, City University of New York, and the

²⁷ Defendants argue that their psychologist, Dr. Bridget Amatore, "received no cooperation from Joseph and therefore could not render a meaningful opinion regarding his psychological condition." (Judd Aff. at 35.) They request that, if Dr. Altshuler is permitted to testify in this case, Dr. Amatore "be afforded another opportunity to complete her neuropsychological evaluation of Joseph." (<u>Id.</u> at 36.) That request is granted. Plaintiffs are directed to make Joseph available for a neuropsychological evaluation by Dr. Amatore. If the parties cannot agree on a mutually convenient time for this examination, they are directed to contact my chambers to schedule a telephone conference on this issue.

²⁸ Dr. Freifelder explained in his deposition that operations research "is a field of applied economics that uses – generally uses relatively sophisticated mathematical models to solve problems commonly that are problems faced by businesses[,] [a]lthough operations research techniques are used to solve other nonbusiness problems as well." (Deposition of Leonard R. Freifelder, Ph.D., dated Aug. 4, 2004 (" Freifelder Dep."), annexed to the Judd Aff. as Ex. O, at 54.)

University of Connecticut. (<u>Id.</u>) He holds no professional licenses. (Deposition of Leonard R. Freifelder, Ph.D., dated Aug. 4, 2004 ("Freifelder Dep."), annexed to the Judd Aff. as Ex. O, at 54.)

Plaintiffs intend to offer Dr. Freifelder's testimony to prove the aggregate net economic loss Joseph is expected to sustain as a consequence of his alleged injuries or conditions. For purposes of his report, Dr. Freifelder assumes, based on Dr. Carfi's and Dr. Altshuler's opinions, that Joseph will not receive a high school degree and that, if he is able to work, he will enter the workforce at the age of 18.43 and will work to the age of 62 or 67, 62 being the youngest age at which workers can begin to receive Social Security retirement benefits and 67 being Social Security full retirement age. (Report of Leonard H. Freifelder, dated May 2004 ("Freifelder Report"), annexed as part of Ex. J(4) to the Judd. Aff., at 4-5.) Using U.S. Census Bureau data, U.S. Department of Labor statistics, actuarial tables and other data, Dr. Freifelder opines that Joseph's future loss of earnings and fringe benefits is \$1,281,091 to \$3,275,331, depending on the length of his work life and his pre-incident education level, meaning the education level Joseph would have achieved had he not been injured. (See Freifelder Report at 2-3.) He also estimates the cost of Joseph's future care as \$20,373,425, and his total economic loss as ranging from \$21,654,517 to \$23,648,756, depending on Joseph's retirement age and pre-incident education level. (Id. at 14.) In estimating the cost of Joseph's future care, Dr. Freifelder assumes, among other things, that Joseph will require numerous medications and medical supplies and services for the remainder of his life, plus Neocate – at a cost of \$30,336 per year – for nutrition. (Id. at 9 (listing all expected life care costs on an annual basis).) These assumptions are based entirely on Dr. Carfi's Life Care Plan for Joseph.

(Freifelder Dep. at 192.)

Defendants object to Dr. Freifelder's report on the ground that his underlying assumptions are unjustified and based on "insufficient and unreliable data." (Defs.' Mem. at 4.) They also question Dr. Freifelder's qualifications to render an opinion regarding Joseph's future health care costs and earning capacity, arguing that Dr. Freifelder "has no professional training in analyzing the future cost of health care" or the "earning capacity of persons in the labor force." (Judd Aff. at 19.)

At his deposition, Dr. Freifelder testified that he has never studied labor economics or medical economics and has never held an academic position teaching economics. (Freifelder Dep. at 57-58.) He also testified that he did not review any of Joseph's medical records (id. at 22, 26-27, 38-39) and therefore did not reach any conclusions of his own regarding causation. (Id. at 31-33.) Nor did he conduct any independent research into Joseph's medical expenses. (Id. at 192.)

An expert may incorporate assumptions into his or her opinion, but those assumptions must be ones that a reasonable juror could find correct based on admissible evidence. See Amorgianos v. Nat'l R.R. Passenger Corp., 137 F. Supp. 2d 147, 176 (E.D.N.Y. 2001), aff'd, 303 F.3d 256 (2d Cir. 2002). See also TK-7 Corp. v. Estate of Barbouti, 993 F.2d 722, 732 (10th Cir. 1993) (expert could not rely on the figures calculated by another expert when the proffered expert did not conduct any investigation of the other expert's figures); Total Containment, Inc. v. Dayco Prods., Inc., No. Civ. A. 1997-CV-6013, 2001 WL 1167506, at *6-7 (E.D. Pa. Sept. 6, 2001) (excluding expert opinions where the expert failed to conduct any independent research to determine the reliability of his assumptions); Otis v. Doctor's Assocs.,

<u>Inc.</u>, No. 94 C 4227, 1998 WL 673595, at *4 (N.D. Ill. Sept. 14, 1998) (precluding proffered expert's opinion on anticipated lost profits where plaintiff had shown no evidence that the expert's calculations were "anything more than an exercise in arithmetic based on inherently unreliable values."). In other words, the expert's underlying assumptions must be evaluated for accuracy.

Dr. Freifelder's underlying assumptions are problematic in a few respects. First, in determining Joseph's pre-incident earning capacity, he assumes that, had Joseph not been exposed to the polyester in the crib sheets, he would have had a normal work life expectancy, meaning he would have been "able to work as a typical male[.]" (Freifelder Dep. at 78.) His calculations do not take into account the possibility that some of Joseph's medical conditions were pre-existing and would have affected Joseph's work life regardless of his purported exposure to polyester. In other words, Dr. Freifelder accepted, for purposes of projecting Joseph's pre-incident earning capacity, that Dr. Carfi's opinion on causation was scientifically valid.²⁹ This is also true with respect to Dr. Freifelder's projections on Joseph's future health

(continued...)

²⁹ Dr. Freifelder testified as follows:

Q. Is it your opinion that but for the alleged reaction to the sheets, Joseph would not have had any difficulty with his earnings capacity?

A. I don't have an opinion on that. I've accepted for purposes of my report the allegations that were made in this case regarding the sheets and the difficulties that the sheets have caused Joseph Israel, both with respect to his ability to work and as to his future medical care.

Q. And would his future ability to work and his future medical care not be affected as well by other conditions that he had?

A. I don't know the answer to that question. You are asking me for a medical or vocational opinion which I am unable to render. . . . For the purposes of preparing this report, I had assumed that the allegations in the materials I received as well as the conclusions drawn by the experts who were qualified to make those opinions

care costs. Dr. Freifelder's estimates are based entirely on Dr. Carfi's Life Care Plan for Joseph, which links all of Joseph's medical expenses to his alleged early exposure to polyester crib sheets.³⁰

Dr. Freifelder also assumes, based solely on his interpretation of Dr. Altshuler's

* * *

Q. What if I told you to assume that there was medical evidence that Joseph was severely ill and that his illness would have impaired his earnings capacity even without ever being exposed to the sheets? Would that change your calculation of your lost future earnings growth?

A.... Under that hypothetical, the answer would be yes.... I guess if the allegations that have been made are not true, are false, then obviously my conclusions would change because my conclusions are based on the premise that the allegations made in the Complaint... are premised on the sheets being the cause of Joseph Israel's problem. If that assumption is false, then clearly the conclusions would change.

(Freifelder Dep. at 83-84, 89-90, 91.)

²⁹(...continued) are accurate and true, and I base my calculations on those opinions and those allegations.

When asked at his deposition how he arrived at the figure of over \$20 million in future medical costs, Dr. Freifelder testified: "I projected the cost that Dr. Carfi indicated Joseph needed to care for his injuries that are related to the allegations in this case, and I estimated those costs from, I believe, July 1 of 2004 through to Joseph's life expectancy." (Freifelder Dep. at 111-12.)

report,³¹ that Joseph will not graduate from high school.³² However, as Dr. Freifelder conceded in his deposition, Dr. Altshuler did not opine that Joseph is unlikely to complete high school. (Id. at 163, 205.) This assumption is therefore wholly speculative, as Dr. Freifelder lacks the qualifications to make this prediction on his own and did not use any scientifically reliable methodology or evidence in doing so.

Conversely, Dr. Freifelder's report also assumes that, had Joseph not been exposed to the sheets, he would have graduated from high school or completed some college without obtaining a degree. (See Freifelder Report at 4.) Dr. Freifelder testified that he knew that both of Joseph's parents and one of Joseph's siblings had received high school diplomas and not continued on to college,³³ but he did not know whether any of Joseph's other siblings had plans to attend college. (Freifelder Dep. at 49-50.) Nor did he know what percentage of white

(Freifelder Dep. at 131.)

³¹ Dr. Freifelder testified:

Q. In the middle of Page 5, Paragraph 2 [of the report], you wrote that, "I have assumed that the plaintiff will enter the workforce without a high school degree on July 1, 2013, at the age of 18.43." Based on what did you assume that?

A. Based on the academic and other difficulties that are described in the report of Lisa Altshuler, Ph.D.

³² Dr. Freifelder testified in his deposition that he performed no independent review of Joseph's school records and did not speak with any of Joseph's teachers. (Freifelder Dep. at 44-45.)

³³ Plaintiffs state that Joseph's oldest brother is currently attending the College of Staten Island. (See Affidavit of Beverly Israel, sworn to May 30, 2006, Plaintiffs' Ex. BB(1).) However, there is no indication that Dr. Freifelder was aware of this when he rendered his opinion.

males in the American population complete high school or attend college. (<u>Id.</u> at 155.)³⁴ Again, Dr. Freifelder does not claim to be a vocational or educational specialist; he has no expertise in evaluating personal skill sets or predicting a particular individual's vocational or educational prospects. (<u>See, e.g.</u>, id. at 97-100.) In making his calculations, he did not take into account Joseph's individual characteristics or his family's socioeconomic status. (<u>Id.</u> at 100.) In short, his assumption that, had Joseph been healthy, he would have graduated from high school or completed some college is speculative.

Dr. Freifelder is certainly competent to estimate life expectancy and earning capacity based on U.S. government statistics and actuarial tables. These are, in fact, fairly straightforward mathematical calculations. The flaw in Dr. Freifelder's analysis lies in his underlying assumptions, which lack any reliable foundation. As explained in detail above, Dr. Carfi's opinion on causation is inadmissible under Daubert — with the possible exception of his opinion on the causation or exacerbation of Joseph's eczema — because it is not grounded in any identifiable scientific methodology. Since Dr. Freifelder's assumptions are based on Dr. Carfi's conclusions, or are otherwise unsupportable, his opinions are likewise inadmissible.

CONCLUSION

For the reasons stated above, Dr. Carfi is directed to appear in court for a <u>Daubert</u> hearing on the issue of medical causation with respect to Joseph Israel's eczema. The parties are

³⁴ In his deposition, Dr. Freifelder was asked to refer to documents containing census information for the U.S. population generally. He testified that, according to the documents, approximately eighty-five to ninety percent of American males earn a high school degree, and approximately seventeen percent of American males attend some college without receiving a degree. (Freifelder Dep. at 155-56, 159.) This lends statistical support to Dr. Friefelder's assumption that Joseph's pre-incident education level would be a high school degree, but it does not support an assumption that Joseph would have attended college.

directed to contact my chambers to schedule the hearing at a mutually convenient date and time.

The remainder of his report and testimony are inadmissible under <u>Daubert</u>. In addition, to the

extent Dr. Altshuler has rendered an opinion as to the cause of Joseph's medical conditions, that

portion of her opinion is inadmissible, but the remainder is admissible. Finally, Dr. Freifelder's

report and testimony are inadmissible in their entirety.

SO ORDERED.

ROBERT M. LEVY

United States Magistrate Judge

Dated: Brooklyn, New York

November 3, 2006

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